

Serial interface module, data from two SSI encoders via RS422, 32 bits /
125 kHz, 250kHz, 500kHz, 1MHz

Part no. **XN-322-2SSI**
178773

General specifications	
Product name	Eaton XN-322 Interface module
Part no.	XN-322-2SSI
EAN	7640130098374
Product Length/Depth	104.2 millimetre
Product height	16.8 millimetre
Product width	80.3 millimetre
Product weight	0.046 kilogram
Certifications	IEC/EN 61131-2 CE UL File No.: E135462 IEC/EN 61000-6-2 CULus IEC/EN 61000-6-4
Product Tradename	XN-322
Product Type	Interface module
Product Sub Type	None
Catalog Notes	Interface module for interpreting data from two absolute encoders via the RS422 interface, specifically designed with SSI encoders (e.g., absolute linear encoders) in mind. Natural binary and Gray code encoders (Gray code is internally converted to natural binary) are supported. 32-bit / 125 kHz, 250 kHz, 500 kHz, 1 MHz. Serial interface module, data from two SSI encoders via RS422, 32-bit / 125 kHz, 250 kHz, 500 kHz, 1 MHz The max. heat dissipation is specified as the maximum power produced inside the device's housing.
Features & Functions	
Features	Fieldbus connection over separate bus coupler possible
Functions	Binary/gray coding (Absolute encoder)
General information	
Channels	2, Transmission channel CL, D, Digital inputs, Absolute encoder
Current consumption	27 mA (typ.), for +24 V, Power supply - Input
Degree of protection	IP20
Mounting method	Rail mounting possible
Overtoltage category	III
Pollution degree	3
Resolution	32 Bit
Type	XN-322 serial interface module for XN300 technology module
Used with	XN-312-... XN300
Voltage type	DC
Ambient conditions, mechanical	
Height of fall (IEC/EN 60068-2-32) - max	1 m
Mounting position	Horizontal
Shock resistance	15 g, Mechanical, Half-sinusoidal shock 11 ms, 18 Impacts
Vibration resistance	5 - 8.4 / 8.4 -150 Hz, 3,5 mm / 1 g
Climatic environmental conditions	
Air pressure	795 - 1080 hPa (operation)
Ambient operating temperature - min	0 °C
Ambient operating temperature - max	60 °C
Ambient storage temperature - min	-20 °C
Ambient storage temperature - max	85 °C
Climatic proofing	Damp heat, constant, to IEC 60068-2-3

Environmental conditions	Dry heat to IEC 60068-2-2
Relative humidity	Condensation: prevent with appropriate measures
Electro magnetic compatibility	
Air discharge	8 kV
Burst impulse	2 kV, Supply cable 1 kV, Signal cable
Contact discharge	4 kV
Electromagnetic fields	1 V/m at 2 - 2.7 GHz (according to IEC EN 61000-4-3) 10 V/m at 0.08 - 1.0 GHz (according to IEC EN 61000-4-3) 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000-4-3)
Emitted interference	47 dB (at 230 - 1000 MHz, Class A, radiated, high frequency) 40 dB (at 30 - 230 MHz, Class A, radiated, high frequency)
Radiated RFI	10 V
Surge rating	1 kV, Signal cable, unbalanced, EMC 0.5/0.5 kV, Supply cable, balanced/unbalanced, EMC
Voltage dips	Voltage dips: 10 ms/Voltage fluctuations: Yes
Terminal capacities	
Terminal capacity	0.25 - 1.5 mm ² , with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight) 0.2 - 1.5 mm ² , flexible without ferrule, H07V-K 0.2 - 1.5 mm ² , solid, H07V-U 24 - 16 AWG 0.25 - 1.5 mm ² , with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)
Gauge pin	A1 (according to IEC/EN 60947-1)
Stripping length (main cable)	10 mm
Insulating material group	I
Electrical rating	
Rated operational voltage	160 V (terminations)
Supply voltage at AC, 50 Hz - min	0 V
Supply voltage at AC, 50 Hz - max	0 V
Supply voltage at DC - min	18 V
Supply voltage at DC - max	30 V
Communication	
Bus termination	Internal, Digital inputs, Absolute encoder
Connection type	RS422, Digital inputs, Absolute encoder Push-in spring-cage terminal (plug-in connection), Connection design in TOP direction
Data transfer rate	Parameterizable, Digital inputs
Protocol	Other bus systems
Input/Output	
Load current	Not specified by plug manufacturer
Safety	
Explosion safety category for dust	None
Explosion safety category for gas	None
Potential isolation	Digital inputs, Absolute encoder: no
Design verification	
Equipment heat dissipation, current-dependent Pvid	1 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	0 W
Rated operational current for specified heat dissipation (In)	0 A
Static heat dissipation, non-current-dependent Pvs	1.06 W
10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.

10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of assemblies	Meets the product standard's requirements.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 9.0

Programmable logic controllers PLC (EG000024) / Fieldbus, decentr. periphery - communication module (EC001604)

Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Field bus, decentralized peripheral / Field bus, decentralized peripheral - communications module (ecl@ss13-27-24-26-08 [BAA073018])

Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	18 - 30
Voltage type (supply voltage)		DC
Number of HW-interfaces CAN		
Number of HW-interfaces industrial Ethernet		
Number of interfaces PROFINET		
Number of HW-interfaces RS-232		
Number of HW-interfaces RS-422	2	
Number of HW-interfaces RS-485		
Number of HW-interfaces serial TTY		
Number of HW-interfaces USB		
Number of HW-interfaces parallel		
Number of HW-interfaces wireless		
Number of HW-interfaces other	1	
Supporting protocol for EtherCAT	No	
Supporting protocol for TCP/IP	No	
Supporting protocol for PROFIBUS	No	
Supporting protocol for CAN	No	
Supporting protocol for INTERBUS	No	
Supporting protocol for ASI	No	
Supporting protocol for KNX	No	
Supporting protocol for Modbus	No	
Supporting protocol for Data-Highway	No	
Supporting protocol for DeviceNet	No	
Supporting protocol for SUCONET	No	
Supporting protocol for LON	No	
Supporting protocol for SERCOS	No	
Supporting protocol for PROFINET IO	No	
Supporting protocol for PROFINET CBA	No	
Supporting protocol for Foundation Fieldbus	No	
Supporting protocol for EtherNet/IP	No	
Supporting protocol for AS-Interface Safety at Work	No	
Supporting protocol for DeviceNet Safety	No	
Supporting protocol for INTERBUS-Safety	No	

Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard eGPRS		No
Radio standard GSM		No
Radio standard LTE		No
Radio standard UMTS		No
IO link master		No
System accessory		Yes
Degree of protection (IP)		IP20
With potential separation		No
Fieldbus connection over separate bus coupler possible		Yes
Rail mounting possible		Yes
Wall mounting/direct mounting		No
Front built-in possible		No
Rack-assembly possible		No
Suitable for safety functions		No
SIL according to IEC 61508		None
Performance level according to EN ISO 13849-1		None
Appendant operation agent (Ex ia)		No
Appendant operation agent (Ex ib)		No
Explosion safety category for gas		None
Explosion safety category for dust		None
Certified for UL hazardous location class I		No
Certified for UL hazardous location class II		No
Certified for UL hazardous location class III		No
Certified for UL hazardous location division 1		No
Certified for UL hazardous location division 2		No
Certified for UL hazardous location group A (acetylene)		No
Certified for UL hazardous location group B (hydrogen)		No
Certified for UL hazardous location group C (ethylene)		No
Certified for UL hazardous location group D (propane)		No
Certified for UL hazardous location group E (metal dusts)		No
Certified for UL hazardous location group F (carbonaceous dusts)		No
Certified for UL hazardous location group G (non-conductive dusts)		No
Width	mm	80.3
Height	mm	16.8
Depth	mm	104.2